REMARKS

I. STATUS OF THE CLAIMS

Claims 1, 7, 11, 14, 37 and 43 are canceled herein.

Claims 19, 21, 22, 25, 30, 36, 38, 39 and 42 are allowed. Although claims 21 and 22 are allowed, these claims are amended herein to correct a minor error. Support for the amendments is found, for example, in FIG. 13.

Claims 2, 8, 9, 27-29 and 31 are "objected to". These "objected to" claims are amended herein to be in independent form. Therefore, it is respectfully submitted that claims 2, 8, 9, 27-29 and 31 are now allowable.

Claims 16 and 32 are amended to be dependent from claim 2 (which should now be allowable). Therefore, it is respectfully submitted that claims 16 and 32 should be allowable. Claim 33 is amended to be dependent from claim 8 (which should now be allowable). Therefore, it is respectfully submitted that claim 33 should now be allowable.

Withdrawn claims 12 and 15 are dependent from amended independent claims. Therefore, these claims are amended herein to be in independent form. It is respectfully requested that, in view of the claim amendments, these claims are somewhat similar to other pending claims. Therefore, it is respectfully requested that claims 12 and 15 be considered.

In view of the above, it is respectfully submitted that claims 2 and 8-10, 12, 13, 15-36 and 38-42 are currently pending.

II. REJECTION OF CLAIMS 10, 13, 20, AND 26 UNDER 35 USC 102(B) AS BEING ANTICIAPED BY ROBERTS (US 6,067,180)

Claims 10 and 13 are amended to recite the optical regenerator comprising a semiconductor optical amplifier (SOA), and the threshold being variable by changing an injection current of the SOA. Claims 10 and 13 are further amended to recite the variable threshold being controlled by controlling the injection current. Support for the amendments is found, for example, on page 26, second paragraph, of the specification.

It is respectfully submitted that Roberts does not disclose or suggest such features.

Claims 20 and 26 are amended to recite the power level of the signal light being controlled before being input to the optical regenerator. See, for example, FIG. 12 of the present application.

It is respectfully submitted that Roberts does not disclose or suggest such features.

In view of the above, it is respectfully submitted that the rejection is overcome.

III. REJECTION OF CLAIMS 17 AND 23 UNDER 35 USC 102(B) AS BEING ANTICIAPTED BY BERGANO (US 5,491,576)

Claims 17 and 23 are amended to recite the power level of the signal light being controlled by an optical amplifier or optical attenuator positioned at the input of the optical regenerator. See, for example, FIGS. 9 and 13 of the present application.

In FIG. 2 of Bergano, a signal light is controlled at the transmitter 201. Bergano does not disclose or suggest control at the input of an optical regenerator.

Moreover, Bergano uses dual modulators to provide control. See, for example, FIG. 1, and column 1, lines 7-67, of Bergano. Bergano does not disclose or suggest control of the power level by an optical amplifier or attenuator.

In view of the above, it is respectfully submitted that the rejection is overcome.

IV. REJECTION OF CLAIMS 18 AND 24 UNDER 35 USC 102(B) AS BEING ANTICIAPTED BY YEATES (US 5,396,059)

Claims 18 and 24 are amended to recite the power level of the signal light being controlled **before being input to the optical regenerator**. See, for example, FIG. 10 of the present application.

In Yeates, an optical regenerator is tested inside an oven to determine the effects of temperature change, etc. Testing data is then stored in a memory of the optical regenerator. Sée, for example, column 3, line 33, through column 4, line 2, of Yeates.

The data stored in the memory is then used by the optical regenerator to adjust internal components of the optical regenerator during operation. See, for example, FIG. 2, and column 4, lines 6-50, of Yeates.

Therefore, Yeates adjusts internal components of the optical regenerator.

Yeates does not disclose or suggest controlling the power level of the signal light **before being input to the optical regenerator**.

In view of the above, it is respectfully submitted that the rejection is overcome.

V. REJECTION OF CLAIM 40 UNDER 35 USC 103 AS BEING UNPATENTABLE OVER CAO IN VIEW OF ROBERTS

Claim 40 is dependent from claim 23. In view of the amendments herein to claim 23, it is respectfully submitted that claim 40 is allowable.

In view of the above, it is respectfully submitted that the rejection is overcome.

VI. REJECTION OF CLAIM 34 UNDER 35 USC 103 AS BEING UNPATENTABLE OVER BERGANO IN VIEW OF CAO

Claim 34 is dependent from claim 17. In view of the amendments herein to claim 17, it is respectfully submitted that claims 34 is allowable.

In view of the above, it is respectfully submitted that the rejection is overcome.

VII. REJECTION OF CLAIMS 35 AND 41 UNDER 35 USC 103 AS BEING UNPATENTABLE OVER YEATES IN VIEW OF CAO

Claim 35 is dependent from claim 18. In view of the amendments herein to claim 18, it is respectfully submitted that claims 35 is allowable.

Claim 41 is dependent from claim 24. In view of the amendments herein to claim 24, it is respectfully submitted that claims 41 is allowable.

In view of the above, it is respectfully submitted that the rejection is overcome.

VIII. CONCLUSION

In view of the above, it is respectfully submitted that the application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

If any further fees are required in connection with the filing of this response, please charge such fees to our Deposit Account No. 19-3935.

Respectfully submitted,

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